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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Fri Sep 14 16:21:40 EDT 2007

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Application No: 10583301 Version No: 1.0

Input Set:

Output Set:

Started: 2007-09-04 13:49:57.358
Finished: 2007-09-04 13:49:58.247
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 889 ms
Total Warnings: 12
Total Errors: 2
No. of SeqIDs Defined: 12
Actual SeqID Count: 12

| Error code | Error Description |
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| W 402 | Undefined organism found in <213> in SEQ ID (1) |
| W 402 | Undefined organism found in <213> in SEQ ID (2) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (3) |
| E 257 | Invalid sequence data feature in <221> in SEQ ID (3) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (4) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (5) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (6) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (7) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (8) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (9) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (10) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (11) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (12) |
| E 257 | Invalid sequence data feature in <221> in SEQ ID (12) |

SEQUENCE LISTING

<110> Shah, Salehuzzaman
Weselake, Randall
Alberta Research Council Inc.

<120> Transgenic Plants With Reduced Level of Saturated Fatty Acid and
Methods for Making Them

<130> 080426-000000US

<140> 10583301

<141> 2007-09-04

<150> CA 2,450,000

<151> 2003-12-18

<150> WO PCT/CA04/02156

<151> 2004-12-17

<160> 12

<170> PatentIn version 3.3

<210> 1

<211> 837

<212> DNA

<213> Synechococcus elongatus ATCC #33912, deposited as
Anacystis nidulans

<220>

<223> delta-9 desaturase (des9, DSG), fatty acyl-CoA desaturase,
fatty acid desaturase

<400> 1

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| gccattcaca ttggagcact gttagcgttc ctgccggcca actttaactg gcccgctgtg | 120 |
| ggcgtgatgg ttgcgctgta ttacattacc ggttggtttg gcatcaccct aggctggcac | 180 |
| cggctaattt cgcaccgtag ctttgaagtt cccaaatggc tggaatacgt gctggtgttc | 240 |
| tgtggcacct tggccatgca gcacggcccc atcgaatgga tcggtctgca ccgccaccat | 300 |
| cacctccact ctgaccaaga tgtcgatcac cacgactcca acaagggttt cctctggagt | 360 |
| cacttcctgt ggatgatcta cgaaattccg gcccgtagcg aagtagacaa gttcacgcgc | 420 |
| gatatcgctg gcgaccctgt ctatcgcttc ttttaacaaat atttcttcgg tgtccaagtc | 480 |
| ctactggggg tacttttgta cgcctggggc gaggcttggg ttggcaatgg ctggtctttc | 540 |
| gtcgtttggg ggatcttcgc ccgcttggtg gtggtctacc acgtcacttg gctggtgaac | 600 |
| agtgctaccc acaagtttgg ctaccgctcc catgagtctg gcgaccagtc caccaactgc | 660 |

tgggtgggttg cccttctggc ctttggtgaa ggctggcaca acaaccacca cgcctaccag 720
 tactcggcac gtcatggcct gcagtgggtg gaatttgact tgacttgggt gatcatctgc 780
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<212> PRT

<213> Synechococcus elongatus ATCC #33912, deposited as
 Anacystis nidulans

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<223> delta-9 desaturase (des9, DSG), fatty acyl-CoA desaturase,
 fatty acid desaturase

<400> 2

Met Thr Leu Ala Ile Arg Pro Lys Leu Ala Phe Asn Trp Pro Thr Ala
 1 5 10 15

Leu Phe Met Val Ala Ile His Ile Gly Ala Leu Leu Ala Phe Leu Pro
 20 25 30

Ala Asn Phe Asn Trp Pro Ala Val Gly Val Met Val Ala Leu Tyr Tyr
 35 40 45

Ile Thr Gly Cys Phe Gly Ile Thr Leu Gly Trp His Arg Leu Ile Ser
 50 55 60

His Arg Ser Phe Glu Val Pro Lys Trp Leu Glu Tyr Val Leu Val Phe
 65 70 75 80

Cys Gly Thr Leu Ala Met Gln His Gly Pro Ile Glu Trp Ile Gly Leu
 85 90 95

His Arg His His His Leu His Ser Asp Gln Asp Val Asp His His Asp
 100 105 110

Ser Asn Lys Gly Phe Leu Trp Ser His Phe Leu Trp Met Ile Tyr Glu
 115 120 125

Ile Pro Ala Arg Thr Glu Val Asp Lys Phe Thr Arg Asp Ile Ala Gly
 130 135 140

Asp Pro Val Tyr Arg Phe Phe Asn Lys Tyr Phe Phe Gly Val Gln Val

145 150 155 160

Leu Leu Gly Val Leu Leu Tyr Ala Trp Gly Glu Ala Trp Val Gly Asn
165 170 175

Gly Trp Ser Phe Val Val Trp Gly Ile Phe Ala Arg Leu Val Val Val
180 185 190

Tyr His Val Thr Trp Leu Val Asn Ser Ala Thr His Lys Phe Gly Tyr
195 200 205

Arg Ser His Glu Ser Gly Asp Gln Ser Thr Asn Cys Trp Trp Val Ala
210 215 220

Leu Leu Ala Phe Gly Glu Gly Trp His Asn Asn His His Ala Tyr Gln
225 230 235 240

Tyr Ser Ala Arg His Gly Leu Gln Trp Trp Glu Phe Asp Leu Thr Trp
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Leu Ile Ile Cys Gly Leu Lys Lys Val Gly Leu Ala Arg Lys Ile Lys
260 265 270

Val Ala Ser Pro Asn Asn
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<211> 4

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<213> artificial

<220>

<223> endoplasmic reticulum retention and retrieval signal sequence

<220>

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<210> 4

<211> 4

<212> PRT

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<223> endoplasmic reticulum retention and retrieval signal sequence

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<210> 6

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<212> PRT

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<223> endoplasmic reticulum retention and retrieval signal sequence

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His Asp Glu Phe

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<212> DNA
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<223> amplification primer des9-3'-ER

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<210> 12
<211> 4
<212> PRT
<213> artificial

<220>
<223> endoplasmic reticulum retention and retrieval signal sequence

<220>
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<222> (3)..(4)

<223> Xaa is any amino acid other than Ser

<400> 12

Lys Lys Xaa Xaa

1